

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/031178 A1

(51) International Patent Classification?: **F16C 13/02**,
C23C 2/00, F16C 23/04, 33/10, 33/66, 33/58

(21) International Application Number:
PCT/EP2004/052380

(22) International Filing Date:
30 September 2004 (30.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
RM2003A000447
30 September 2003 (30.09.2003) IT

(71) Applicant (for all designated States except US): **DANIELI
& C. OFFICINE MECCANICHE S.P.A.** [IT/IT]; Via
Nazionale 41, I-33042 Buttrio (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **POLONI, Alfredo**
[IT/IT]; Via G. Paolini 29, I-34070 Fogliano Redipuglia
(IT). **DE LUCA, Andrea** [IT/IT]; Via Candotti, 61,
I-33047 Remanzacco (IT). **PAIARO, Ivan** [IT/IT]; Via
del Capitello 75, I-34077 Ronchi Dei Legionari (IT).

(74) Agent: **GERVASI, Gemma**; Notarbartolo & Gervasi
S.p.A., Corso di Porta Vittoria 9, I-20122 Milan (IT).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

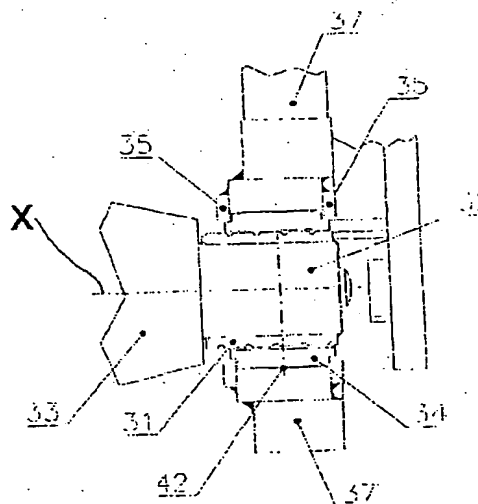
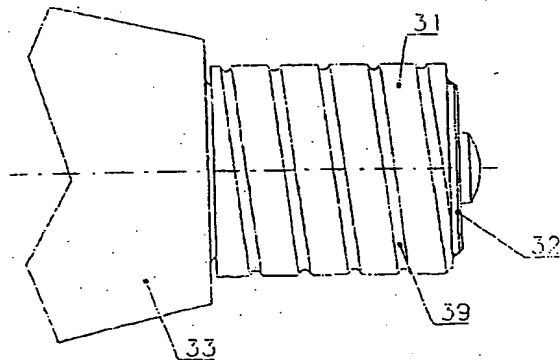
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report
— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **SUPPORT BEARING FOR A ROLL**



(57) Abstract: Support bearing for a roll (33) for immersion in liquid metal, comprising an internal rotating bush (31) fitted coaxially on a pin (32) at the end of the roll (33), and rotating inside an external bush (34) fixed to a supporting arm (37) of the roll (33). The first bush (31) is provided with an axial helical groove (39) on its outer surface and the second bush (34) is provided with a toroidal-shaped convex outer surface to allow rotation without friction inside the cylindrical ring of the supporting arm (37).